
LETTERS TO THE EDITOR

Sir,

We wish to draw your readers' attention to an important additional finding with regard to our recently published paper 'Adherence of Silicone Oil to Standard and Heparin-coated PMMA Intraocular lenses (Eye 1994;8:547-9).

In September 1994, at the XIXth Gonin Meeting in Versailles, Dr Jay Federman presented his observation of the adherence of silicone oil to silicone intraocular lenses. He found that at the time of silicone oil removal, multifocal silicone oil droplets developed and appeared to be adherent to the surface of the silicone implant. These droplets could not be dislodged intraoperatively, either by focal aspiration or by irrigation. He postulated that the silicone oil polymer had somehow made a permanent bond to the silicone polymer of the intraocular lens. He went on to speculate that a chemical reaction had occurred between the siloxane molecules and substances used to induce cross-linkage in the foldable intraocular lens.

His findings were in fact identical to our own observations with PMMA and heparin-coated PMMA lenses. Silicone lenses are more hydrophobic than PMMA lenses. On the basis of surface energies, it is expected that silicone oil will have an even greater affinity to silicone intraocular lenses than to PMMA lenses. We found that it was impossible to dislodge silicone droplets from PMMA lenses by vigorous washing. It is therefore not unexpected that silicone droplets cannot be dislodged from silicone lenses by aspiration or irrigation unless powerful surfactants are used. We suggest that Dr Federman's observations are entirely predictable on the basis of the surface energies of the substances used. There is no need to invoke chemical reactions for the silicone molecule, which is chemically inert.

We have now confirmed in the laboratory that silicone oil adheres to silicone lenses and cannot be entirely removed by irrigation.

In our paper we concluded that when intraocular lens implantation is combined with silicone oil removal, care should be taken to avoid contact between the lens and the oil. This would seem to be as necessary and appropriate for the implantation of silicone intraocular lenses as for PMMA lenses.

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Sir,

I would like to comment on the paper by Claoué and Steele concerning vitreous loss during cataract surgery,¹ and in particular the relationship to subsequent rhegmatogenous retinal detachment (RRD). In their series of 43 cases an 'expected retinal detachment rate' of between 2% and 8% suggests an expected number of RRD cases of between 1 and 4.

In a study of pseudophakic retinal detachments (following both extracapsular and intracapsular extractions) conducted between St Thomas' and Moorfields Hospitals in 1991,² we found that in all forms of pseudophakic detachment those complicated by vitreous loss were more likely to produce RRDs earlier than those not thus complicated. However, even in those cases of RRD following vitreous loss the main interval from the time of extraction to the onset of the detachment was just over 8 months (the interval was 14½ months after extraction without vitreous problems). The greater number of patients (79%) reported by Claoué and Steele have been followed for only 1 year, and it will be important to find out whether or not any detachments occur when the study is extended over a longer period, especially as the 'expected' retinal detachment number is so small.

The relationship between vitreous loss and RRD is certainly intriguing. In our own study of the 36 patients who had extracapsular operations, 26 had had vitreous loss, 14 of whom had vitreous adherent to the section when presenting with their retinal detachment. Thus although the presence of vitreous in the section is not an invariable finding, it appears to be an important one. However, unless this event is gross (as was the case in many of Vail's cases in pre-microscope days with subsequent direct traction on the inferior retina), it is not clear why more modest incarceration increases the risk of detachment. It

may do so by altering the nature of dynamic vitreoretinal traction when posterior vitreous detachment occurs making break formation more likely. Thus the prevention of gel incarceration into the section at the time of cataract surgery, which can be achieved by anterior vitrectomy, may discourage RRD and of course some of the other complications mentioned by the authors.

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References

1. Claoué C, Steel ADMcG. Visual prognosis following accidental vitreous loss during cataract surgery. *Eye* 1993;7:735-9.
2. McHugh D, Wong D, Chignell A, Leaver P, Cooling R. Pseudophakic retinal detachment. *Graefes Arch Clin Exp Ophthalmol* 1991;29:521-5.

Sir,

We are grateful to Mr Anthony Chignell for his comments on our recent paper.¹ We are well aware of his expertise in the field of pseudophakic retinal detachments and have not commented on this particular aspect in our paper since none of our patients had developed a retinal detachment at the time of data analysis. Clearly, it would be ideal to study patients until they are lost to follow-up or until their death in order to ascertain the long-term benefit of cataract extraction when complicated by vitreous loss. Unfortunately, the establishment of the internal market in the National Health Service encourages discharge of patients at the earliest opportunity commensurate with acceptable clinical practice. This means that the long-term follow-up of patients in order to monitor for eventual complication is likely to become increasingly difficult to justify and will have inevitable repercussions in terms of data generation.

We agree entirely with Mr Chignell's final sentence regarding the importance of preventing gel incarceration into the wound at the time of cataract surgery and likewise believe that adequate vitreous toilet following accidental vitreous loss should have a significant beneficial effect on the incidence of subsequent rhegmatogenous retinal detachment.

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References

1. Claoué C, Steele, ADMcG. Visual prognosis following accidental vitreous loss during cataract surgery. *Eye* 1993;7:735-9.

Sir,

Further to McElvanney and Sherriff's Letter to the Journal on 'Uveitis and Skin Tattoos',¹ I feel that emphasis should be placed on the more likely differential diagnoses.

The Koebner phenomenon (isomorphic reaction) describes the tendency for lesions characteristic of a particular disease to develop at sites of skin trauma such as surgical or mechanical trauma.² This phenomenon is well recognised in sarcoidosis and psoriasis, as well as the more common associations of lichen planus and viral warts. Additionally, the granulomata formed in cutaneous sarcoidosis are often indistinguishable from inclusion granulomata varying from cactus spine to zirconium, and this is the reason against tattooing with ink over the site of Kveim testing.³

Therefore in a patient who has uveitis plus a reaction in a coexisting scar, the diagnosis of sarcoidosis must be actively pursued (unless there are psoriatic lesions) because of the possible multi-system ramifications. The designation of 'sensitivity to metallic dye' can be made only by exclusion.

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2. Marks R, editor. *Roxburgh's common skin diseases*, 16th ed. Oxford: Oxford Medical, 1993.
3. Mckee PH. *Pathology of the skin*. London: Gower Medical, 1989;6:22-6:28.

Sir,

The occurrence of uveitis preceded by swelling of skin tattoos is a recently described association.^{1,2} We would agree with Mr Harvey that patients who present in this manner should be appropriately investigated to exclude an underlying pathological cause for their uveitis; however, it is important to ensure that patients are not over-investigated.

The Koebner phenomenon, a term used to describe skin lesions which develop in recently traumatised skin, was originally described in psor-